

### **REMARKS**

Applicant thanks the Examiner for the thorough consideration given the present application.

Claims 1-52 are pending in this application. Claims 1, 11 and 21 are independent and are amended. No new matter is involved.

Reconsideration of this application, as amended, is respectfully requested.

### **DRAWINGS**

In response to an objection to the drawings in the previous Office Action, Applicant filed a Letter to the Draftsperson on November 4, 2002, with proposed changes to FIG. 4 to insert the cutting protection members 157a, 167a, and asked for withdrawal of the objection to the drawings.

The outstanding Office Action Summary indicates that the proposed drawing changes are accepted.

Accordingly, as noted above, Applicant is submitting herewith a formal replacement drawing sheet that contains the approved changes to Fig. 4.

### **CLAIM AMENDMENTS**

Applicant has amended independent claims 1, 11 and 21 to clarify their meaning so that the metes and bounds of the claimed subject matter is clear to

one of ordinary skill in the art. The scope of the claims has not been narrowed in any way. Rather, the claims have been clarified.

**REJECTION UNDER 35 U.S.C. §103(A)**

Claims 1-30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over, Applicant's so-called "admitted prior art" (APA) in view of U.S. Patent 5,822,030 to Uchiyama. This rejection is respectfully traversed.

The Office Action admits that Applicant's allegedly admitted prior art does not disclose that its pad (15,25) or pad terminal (57/67) is spaced apart from an edge of the first panel in the horizontal direction by a desired distance.

To remedy this clearly admitted deficiency, the Office Action turns to Uchiyama. According to the Office Action, Uchiyama discloses a pad (20) and/or a pad terminal (16) being formed in a horizontal direction along a surface of the second panel as well as spaced from an edge of the first panel in the horizontal direction by a desired distance, referencing Fig. 2 of Uchiyama.

The Office Action concludes that it would be obvious to employ a pad/pad terminal along a substrate surface in a horizontal direction and spaced from an edge of the first panel in the horizontal direction by a desired distance as shown by Uchiyama for easily assembly, referring to col. 3, lines 36-38.

In rejecting claims under 35 U.S.C. §103, it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of

obviousness. See, In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention.

Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. F-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. These showings must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999). Note, In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch,

972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Moreover, a factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Applicant's Fig. 1 discloses only LCD cells, and do not disclose structure for mounting LCD cells to drive circuits, control circuits or power supply circuits.

Uchiyama, on the other hand, is directed to mounting a liquid crystal cell onto a circuit board having a semiconductor chip for the liquid crystal drive and some or all of the electronic components needed to drive and control the liquid crystal and where the input terminals of the liquid crystal cell and the output terminals of the circuit board are directly connected. See col. 2, lines 43-50, and Figs. 1-20 of Uchiyama, for example.

In Applicant's Fig. 1, there is no gap or separation in the horizontal direction between the liquid crystal cell pads/pad terminals and the edge of the substrate 101a.

Moreover, Uchiyama's liquid crystal cell terminals 20 are clearly shown, for example in Fig. 2 of Uchiyama, as being continuously formed along the entire substrate 19 and there is no gap or separation in the horizontal direction of Fig. 2 between the right side edge of upper substrate 11 and terminal 20.

Thus, neither Applicant's Fig. 1 nor Uchiyama's LCD cells 11 disclose the facing edge of the pad or pad terminal or second ITO layer being spaced apart from the substantially perpendicular edge of the first panel in the horizontal direction by a desired distance, as claimed.

Accordingly, even if it were obvious to combine these two references, the resulting reference combination would not meet, or render obvious, the claimed invention.

Moreover, while there clearly is a gap or separation between the right side edge of upper substrate of Uchiyama's liquid crystal cell 11 and output terminal 16 of circuit board 12, this type of gap is not what is claimed.

Claims 1-30 recite that the gap is between the liquid crystal cell substrate edge and the liquid crystal cell pad or pad terminal. As indicated above, no such feature is disclosed by Uchiyama. The only gap shown in Uchiyama is with respect to circuit board output terminals 16 and the edge of upper substrate 11.

So, even if one of ordinary skill in the art were motivated to modify Applicant's Fig. 1 to mount the output terminals 16 of Uchiyama's circuit board to the pad/pad terminals of Applicant's Fig. 1, that modification would not result

in the claimed invention because the pad/pad terminals of the modified structure would still not be spaced apart from the edge of the substrate, as recited.

Accordingly, the Office Action fails to make out a *prima facie* case of obviousness of the invention recited in claims 1-30.

Further, with respect to claims 7, 8, 17, 18, 27 and 28, the Office Action admits that the cut protection member feature is missing. To remedy this deficiency, the Office Action states that “[O]ne of ordinary skill in the art would have realized the desire to form a protection layer (a protection member) on a second substrate for protecting purpose.” Based on this speculative statement, the office Action concludes that it would be obvious to form a cut protection member on a second substrate of an LCD device in order to protect a substrate from damage.

Applicant respectfully disagrees.

In the first place, as pointed out above, a factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

The Office Action has provided absolutely no objective factual evidence to support the completely speculative assertion that “[O]ne of ordinary skill in the art would have realized the desire to form a protection layer (a protection member) on a second substrate for protecting purpose.”

Accordingly, this premise, on which this rejection is based, is wholly improper and must be withdrawn.

In the second place, there is no disclosure in either Applicant's Fig. 1 or in Uchiyama that a substrate needs to be protected from damage when it is cut or that it needs to be protected from damage using a cut protection member. The only disclosure of such a need and such a feature is found in Applicant's disclosure separate and apart from the disclosure of Fig. 1.

This rejection is a clear example of a rejection based solely on improper speculation and hindsight reconstruction of Applicant's invention based solely on Applicant's disclosure. It is well settled that a rejection cannot properly be based on speculation or impermissible hindsight.

As is well settled, a rejection based on Section 103 must rest on a factual basis, with the facts being interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, the examiner has the initial duty of supplying the factual basis for the rejection he advances. He may not, because he doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. See, In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

Accordingly, for these additional reasons, the Office Action fails to make out a *prima facie* case of obviousness of the invention recited in claims 7, 8, 17, 18, 27 and 28.

Reconsideration and withdrawal of this rejection of claims 1-30 is respectfully requested.

Claims 31-52 stand rejected under 35 USC §103(a) as unpatentable over Applicant's allegedly admitted prior art in view of Uchiyama, as applied above, and further in view of U.S. Patent 5,434,433 to Takasu et al. (hereinafter, "Takasu"). This rejection is respectfully traversed.

In the first place, the reference combination of Applicant's Fig. 1 and Uchiyama fails to make out a *prima facie* case of obviousness of the claimed invention for reasons stated above.

In the second place, Takasu is not applied to remedy the deficiencies in the combination of Applicant's Fig. 1 and Uchiyama. Takasu is only applied because Takasu allegedly discloses the step of cutting a color substrate after joining two substrates and injecting liquid crystal material therebetween, with reference to Fig. 5 of Takasu.

Accordingly, even if it were obvious to modify the base reference combination of Applicant's Fig. 1 and Uchiyama, the resulting reference combination would not meet, or render obvious, the claimed invention.

In particular, the combination of Applicant's Fig. 1 and Uchiyama fails to result in, or render obvious, cutting a portion of the first panel covering the pad in order to expose the pad so that the pad does not overlap with the common electrode. Cutting substrate 1a shown in Applicant's Fig. 1, as proposed in the rejection, to reveal the contact pad 57, for example, does not provide the non-

overlap feature recited in claims independent claims 31, 39 and 45, and dependent claims 32-38, 40-44 and 46-52.

Accordingly, the Office Action has not made out a *prima facie* case of obviousness of the invention recited in claims 31-52.

Further, with respect to claims 35, 43 and 50, the feature of providing a cut protection member on the second panel is not obvious for the additional reasons stated above with respect to claims 7, 8, 17, 18, 27 and 28.

Accordingly, the Office Action fails to provide a *prima facie* case of obviousness of the invention recited in claims 31-52.

Reconsideration and withdrawal of this rejection of claims 31-52 is respectfully requested.

#### **NON-APPLIED REFERENCES**

Since the remaining patents cited by the Examiner have not been utilized to reject claims, but merely to show the state of the art, no comment need be made with respect thereto.

#### **CONCLUSION**

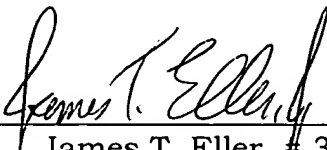
All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

If any issues remain, however, the Examiner is invited to telephone Robert J. Webster, Reg. No. 46,472, at 703-205-8000 in an effort to expedite prosecution.


Pursuant to the provisions of 37 CFR 1.17 and 1.136(a), Applicant respectfully petitions for a one (1) month extension of time for filing a response in connection with the present application. The required fee of \$120.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,  
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**2658-014P**

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Attachment: Replacement Drawing Sheet